

CLAIMS

1. A print cartridge comprising:
 - a cartridge body having a lower portion and a vertical wall;
 - a printhead attached to the lower portion;
 - a contact array having a first pair of columnar arrays of contact areas and a second pair of columnar arrays of contact areas disposed on the vertical wall, the columnar arrays extending along at least one half of a height of a region occupied by the contact array, the columnar arrays of each pair converging toward each other in a direction toward the lower portion.
2. The print cartridge of claim 1, wherein less than one-half of the contact areas are positioned in a lower half of the region occupied by the contact array.
3. The print cartridge of claim 2, wherein the contact array further includes a row of contact areas substantially perpendicular to each of the columnar arrays.
4. The print cartridge of claim 2, wherein at least one of the columnar arrays of contact areas is substantially nonlinear.
5. The print cartridge of claim 2, wherein each of the pairs of columnar arrays includes at least one ground contact area.
6. The print cartridge of claim 5, further comprising conductive traces that electrically connect the ground contact areas to the printhead.
7. The print cartridge of claim 2, wherein each of outermost transversely separated columnar arrays include more contact areas than columnar arrays between the outermost transversely separated columnar arrays.

8. The print cartridge of claim 1, wherein the region occupied by the contact array has a height of about 13.7 mm and width of about 11.3 mm.
9. The print cartridge of claim 1, wherein the region occupied by the contact array has a width of less than about 12 mm.
10. The print cartridge of claim 1, wherein the contact areas are asymmetrically spaced.
11. The print cartridge of claim 10, wherein adjacent contact areas are spaced in a range of about 1 to 3 mm.
12. A fluid ejection device comprising:
 - a cartridge body having a lower portion and a vertical wall;
 - a fluid ejecting integrated circuit attached to the lower portion; and
 - a contact array disposed on the vertical wall and including a plurality of columns of contact areas and a row of contact areas substantially perpendicular to the columns of contact areas, and wherein the columns are arranged in pairs with each pair converging toward each other in a direction toward the lower portion;wherein less than one-half of the contact areas are positioned in a lower half of a region occupied by the contact array.
13. The fluid ejection device of claim 12, wherein the plurality of columns of contact areas comprise four columns of contact areas.
14. The fluid ejection device of claim 12, wherein at least one of the columns of contact areas is nonlinear.
15. The fluid ejection device of claim 12, wherein each of the columns and row of contact areas have at least one ground contact area.

16. The fluid ejection device of claim 12, wherein the ground contact areas are electrically interconnected by conductive traces.
17. The fluid ejection device of claim 12, wherein the region occupied by the contact array has a width of less than about 12 mm.
18. The fluid ejection device of claim 12, wherein the row of contact areas is positioned in an upper half of the region occupied by the contact array.
19. An interconnect circuit comprising:
 - a flexible substrate; and
 - a contact array disposed on the substrate, the contact array comprising a first pair of converging columnar arrays of contact areas, a second pair of converging columnar arrays of contact areas, and a row of contact areas substantially perpendicular to the columnar arrays;
 - wherein the columnar arrays of each pair converge toward each other in a direction away from the row of contact areas and extend along at least one half of a region occupied by the contact array.
20. The interconnect circuit of claim 19, wherein the row of contact areas is in a first half of the region occupied by the contact array, and more than one-half of the contact areas are positioned in the first half of the region.
21. The interconnect circuit of claim 19, wherein at least one of the columnar arrays is substantially non-linear.
22. The interconnect circuit of claim 21, wherein the row of contact areas is substantially linear.
23. The interconnect circuit of claim 19, wherein the flexible substrate is a 48 mm substrate.

24. The interconnect circuit of claim 19, wherein the contact areas within each of the columnar arrays and row of contact areas are asymmetrically spaced.
25. A method of making a fluid ejecting apparatus, comprising:
forming a contact array circuit having a plurality of pairs of columns of contact areas, wherein the columns of contact areas of each pair converge toward a lower portion of a region occupied by the contact array, and wherein less than one-half of the contact areas are positioned in a lower half of the region occupied by the contact array;
electrically connecting the contact array circuit to a fluid drop ejecting device; and attaching the contact array circuit to a cartridge body.
26. The method of claim 25, wherein electrically connecting the contact array to a fluid drop ejection device includes electrically connecting conductive traces to a thermal jetting device.
27. The method of claim 25, wherein electrically connecting the contact array to a fluid drop ejection device includes electrically connecting conductive traces to a thermal inkjet printhead, and wherein attaching the contact array circuit to a cartridge body includes attaching the contact array circuit to a print cartridge body.